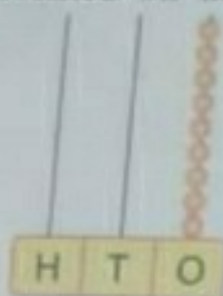


## NUMBERS BEYOND 999

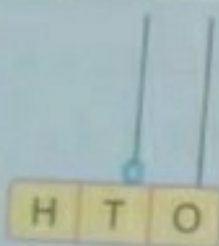
We know that an abacus is an instrument used for counting. It has spikes. The spike on the extreme right represents ONES place. All one digit numbers are represented on this spike.



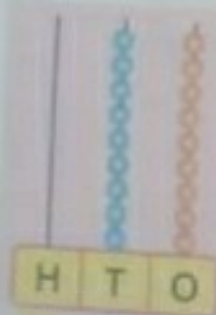
### Important Tips

0, 1, 2, 3, 4, 5, 6, 7, 8 and 9 are one digit numbers.

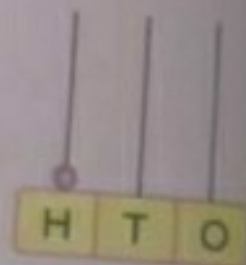
The spike to the left of the ones place represents **TENS** place.  
The spike to the left of the tens place represents **HUNDREDS** place.



The smallest one digit number = 1  
The largest one digit number = 9  
Add 1 to the largest one digit number to get  $1 + 9 = 10$   
= The smallest two digit number



Largest two digit number = 99  
Add 1 to largest two digit number to get  $1 + 99$   
= 100  
= The smallest three digit number



## PLACE VALUE OF A DIGIT IN A NUMBER

Mount Everest is the highest mountain peak in the world. It is 8848 m high.

Let us represent this number on the spike abacus.

It can also be shown in place value chart.

Thousands	Hundreds	Tens	Ones
8	8	4	8



A digit gets its value according to the place it has in the place value chart. A digit in one place has a different value.

Thousands	Hundreds	Tens	Ones
8	8	4	8
↓	↓	↓	↓
8 thousands = $8 \times 1000$ = 8000	8 hundreds = $8 \times 100$ = 800	4 tens = $4 \times 10$ = 40	8 ones = $8 \times 1$ = 8
= 8000	+ 800	+ 40	+ 8

## COMPARING NUMBERS

In school A, there are 2146 students and in school B, there are 846 students. Which school has more number of students?

A number having more number of digits is greater.

In 2146 and 846, 2146 has 4-digits and 846 has 3-digits. So,  $2146 > 846$ .

So, school A has more number of students.

Sonam and Megha collect their pocket money in their piggy banks. Sonam has ₹ 3124 in her piggy bank, whereas Megha has ₹ 3129 in her piggy bank. Who has more money?

If the two numbers are of same number of digits then, we

Compare the digits on the extreme left. Compare thousands digits of the given numbers.	If the extreme left digits are same, then compare the next digits to the right. Compare the hundreds digits.	Compare the tens digits.	Compare the ones digits.																																																
<table border="1"> <thead> <tr> <th>Th</th> <th>H</th> <th>T</th> <th>O</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>1</td> <td>2</td> <td>4</td> </tr> <tr> <td>3</td> <td>1</td> <td>2</td> <td>9</td> </tr> </tbody> </table> <p style="text-align: center;"><math>3 = 3</math></p>	Th	H	T	O	3	1	2	4	3	1	2	9	<table border="1"> <thead> <tr> <th>Th</th> <th>H</th> <th>T</th> <th>O</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>1</td> <td>2</td> <td>4</td> </tr> <tr> <td>3</td> <td>1</td> <td>2</td> <td>9</td> </tr> </tbody> </table> <p style="text-align: center;"><math>1 = 1</math></p>	Th	H	T	O	3	1	2	4	3	1	2	9	<table border="1"> <thead> <tr> <th>Th</th> <th>H</th> <th>T</th> <th>O</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>1</td> <td>2</td> <td>4</td> </tr> <tr> <td>3</td> <td>1</td> <td>2</td> <td>9</td> </tr> </tbody> </table> <p style="text-align: center;"><math>2 = 2</math></p>	Th	H	T	O	3	1	2	4	3	1	2	9	<table border="1"> <thead> <tr> <th>Th</th> <th>H</th> <th>T</th> <th>O</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>1</td> <td>2</td> <td>4</td> </tr> <tr> <td>3</td> <td>1</td> <td>2</td> <td>9</td> </tr> </tbody> </table> <p style="text-align: center;"><math>4 &lt; 9</math></p>	Th	H	T	O	3	1	2	4	3	1	2	9
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## Rules for Writing Roman Numerals

1. Repetition of a numeral means addition.

$$\text{II} = 1 + 1 = 2$$

$$\text{XX} = 10 + 10 = 20$$

$$\text{III} = 1 + 1 + 1 = 3$$

$$\text{XXX} = 10 + 10 + 10 = 30$$

2. A smaller numeral written to the right of a greater numeral means addition.

$$\text{VI} = 5 + 1 = 6$$

$$\text{XV} = 10 + 5 = 15$$

$$\text{XXV} = 10 + 10 + 5 = 25$$

3. A smaller numeral written to the left of a greater numeral means subtraction.

$$\text{IV} = 5 - 1 = 4$$

$$\text{IX} = 10 - 1 = 9$$

$$\text{XL} = 50 - 10 = 40$$

4. When a smaller numeral is placed between two numerals of greater value, it is subtracted from the numeral placed after it.

$$\text{XIV} = 10 + (5 - 1)$$

$$= 10 + 4 = 14$$

$$\text{XIX} = 10 + (10 - 1)$$

$$= 10 + 9 = 19$$



### Important Tips

- Repetition of a symbol is not allowed more than thrice.